CLASS SPECIFICATION
County of Fairfax, Virginia

CLASS CODE: 5189 **TITLE:** ENVIRONMENTAL TECHNOLOGIST II **GRADE**: S-21

DEFINITION:
Under general supervision, to perform a variety of advanced or lead professional duties in a specialized area of Environmental Services (e.g. advanced instrumentation, management information system, quality control/assurance or field monitoring); and to do related work as required.

TYPICAL TASKS:
Establishes warning and control limits on all tests and parameters to ensure accuracy and reproduceability of all data;
Maintains and reviews test Quality Control data on a daily basis;
Performs required statistical calculations;
Conducts special studies such as sampling plan evaluations, sampling holding procedures, and comparability and new methods evaluations to improve quality control and/or efficiency; investigates all testing and data reporting that is outside of the prescribed control limits;
Takes necessary steps to bring into control; works directly with the section supervisor to effect appropriate solutions;
Prepares monthly quality control reports and participates in additional laboratory reporting needs; maintains the Laboratory Information Management System (LIMS);
Develops laboratory computer applications and designs and prepares associated programs;
Prepares laboratory monitoring and processes control reports for submission to the State Water Control Board (regulatory agency) and division management;
Captains and maintains laboratory boat for estuary and river sampling;
Conducts stream, estuary, and river sampling;
Performs physical and chemical field measurements such as dissolved oxygen, conductivity, secchi depth, and temperature and preserves samples for laboratory analysis;
Monitors submerged aquatic vegetation, algal populations and fish species;
Performs sanitary sewer investigations and industrial waste monitoring;
Instructs field personnel in use of equipment and required safety procedures;
Performs special lab testing and instrumental repairs;
Conducts air sampling to monitor incinerators for particulate and organic emissions;
Serves as lead analyst for the Gas Chromatograph/Mass Spectrometer (GC/MS);
Conducts quantitative organic pollutant identification and analysis to include priority pollutants such as PCBs and Dioxin;
Performs sample preparation and instrument calibration, maintenance, and trouble-shooting;
Performs instrumental analyses, employing the Atomic Absorption Spectrophotometer, Gas Chromatograph, Inductively Coupled Plasma Emission Spectrometer, Auto Analyzer II, Zero Head Space Extractor, Closed Loop Stripping Apparatus, TOC Analyzer, Specific Ion Meter and Isokinetic Samplers;

Under supervisor works on special projects including field work, method development, laboratory analyses, and write-up of results;
Performs all routine and non-routine tests or regulatory functions associated with wastewater, air, stream, estuary, sediment, sludge, ash, leachate, groundwater, and toxic or controlled substances or discharges.

REQUIRED KNOWLEDGE, SKILLS, AND ABILITIES:

Extensive knowledge of the principles and techniques of applied chemistry, biochemistry and microbiology with an adequate background in the theory and operation of analytical instrumentation;
Knowledge of applicable Federal, State and County procedures and regulations and ability to identify violations;
Ability to perform and analyze complex lab tests and instrument repairs;
Ability to set test parameters;
Ability to write clear, concise reports; ability to develop new test methods and procedures;
Ability to lead and instruct others;
Ability to perform advanced mathematical calculations;
Ability to communicate effectively both verbally and in writing;
Ability to obtain and handle test samples properly and safely.

EMPLOYMENT STANDARDS:

Any combination of education and experience equivalent to graduation from an accredited college or university with a degree in chemistry, biology, or a related science and two years of professional experience performing chemical, biochemical, microbiological, and physical tests and/or regulatory control and/or data management on wastewater, streams, estuary or industrial wastes.

REVISED: July 27, 1987
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